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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/621,859 | 07/16/2003 | Andrew R. Weisenberger | 062374 | 1761 |

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| EXAMINER |
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JIANG, CHEN WEN

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| ART UNIT | PAPER NUMBER |
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3744

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| NOTIFICATION DATE | DELIVERY MODE |
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09/14/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/621,859 | | WEISENBERGER ET AL. | |
| | Examiner | | Art Unit | |
| | Chen-Wen Jiang | | 3744 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-13, 22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13, 22 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The arguments presented by the applicant have been duly noted. Examiner removes the reference of Harriman ASHRAE Journal due to Declaration under 37 C.F.R. 1.131 submitted on 24th of January 2006. Also, the extremely unclear pictures asserted by Applicant are removed from the references.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1-5, 7-13, 22 and 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Construction Drying (Munters 2000) in view of Case Study (Munters 03/2002), Using Desiccant Technology to End Moisture Nightmare on Construction Projects (Munters 02/2002), Munters (2000/2001) and Daily Journal of Commerce (June 1, 2000).

In regard to claims 1, 2, 5 and 7, Munters discloses drying services to speed construction activities protect materials and eliminate moisture problems and control humidity at building project. The techniques include using desiccant dehumidification, refrigeration and heating equipment. Munters dehumidifiers continuously replace humid air inside the building with air, which has been dehumidified, i.e.; performing moisture removal within the construction project. This extremely dry air has a low “vapor pressure”. The picture of “Union Station, Seattle, Washington” (page 2) has vapor barrier on the working floor and siding and the descriptions under the picture of “San Francisco, California” (page 5) describes the humidity was extracted from the closed unheated building to allow interiors to be finished on schedule. Munters (2000) discloses the invention substantially as claimed. However, Munters (2000) does not explicitly disclose humidity measurement. Munters (03/2002) discloses maintaining level of 30% RH (page 1, col.1 and page 2, col.2) and Munters (02/2002) discloses drying lumber and plywood to 12% before closing the walls (page 2) in the same field of endeavor for the purpose of avoiding mold, i.e.; performing moisture removal within the construction project when the humidity level is above the specified level, such as 12% or 30%. The determining moisture content level at one or more points within the space in the construction project is inherent in the system in order to meet the desired humidity level. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the apparatus of Munters (2000) with moisture measurement in view of Munters (03/2002 and 02/2002) so as to improve quality of the construction and shorten the construction time. Munters (02/2002) also discloses the dehumidifier produces air and piped into the closed building using flexible ductwork and direct to specific work areas (moving equipment to different location). It is well known in the art that

Art Unit: 3744

the space has to be enclosed for the environmental-conditioned space. Picture in the Munters (2000) is also found in Daily Journal of Commerce (June 1, 2000; front cover) with better quality. The picture demonstrates the vapor barrier surrounding the sides to create a dry working inside building under construction. In regard to the sealed the space with vapor barrier, one having ordinary skill in the art known the material surrounding of the working floor is tarps (vapor barrier) at the front cover of Daily Journal of Commerce. The space has to be enclosed in order to achieve the desired condition such as about closed unheated building (Munters 2000, page 5, San Francisco, California) and covered with a tarps or temporary plywood structure (front cover and page 3 of Daily Journal of Commerce). The tarps and plywood (also considered as vapor barrier since it prevents outside moisture air entering the space) are used to prohibit outside moisture to enter the space under construction. Under the principals of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. *Irre King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986).

In regard to claims 3 and 4, Drying services to speed construction are disclosed by Munters (02/2002) for housing project, by Daily Journal of Commerce for building under construction, by Munters (03/2002) for school and by Munters (2000) for high rise towers, schools, offices and shopping centers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the same technology to single

Art Unit: 3744

family drilling since single family drilling is also a building/housing and has the same type of moisture problem.

In regard to claims 8-13, Munters (2000) disclose the system may be desiccant dehumidification alone, or an integrated system of heating, cooling, air moving and dehumidification equipment. Munters (03/2002) disclose the system is a combination of desiccant dehumidifiers, indirect fired heater, and fans used to move the warm, dry air through a distribution network of light weight flexible duct. Munters (2000/2001) discloses dehumidification and heating in the same field of endeavor for the purpose of enhance moisture removal.

In regard to claim 22, in addition to all above, Munters (03/2002) discloses maintaining level of 30% RH in the space (page 1, col.1 and page 2, col.2), Munters (02/2002) discloses drying lumber and plywood to 12% before closing the walls (pages 1 and 2) and Munters (2000) discloses bring concrete slab to specific moisture content. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the humidity sensor at the locations of desired humidity specified, such as lumber, plywood, wall and slab areas to have better representation of the humidity at the specified structure areas. In response to applicant's argument that "positioning and operating within the space one or more drying devices", it is well known in the art that the purpose of dehumidifiers is to remove moisture in the area. The locations of the dehumidifiers depend on the building, facility arrangements and capacity required, such as basement associated with building HVAC ducts, portable dehumidifiers within smaller space and large dehumidifiers associated with piping for large buildings. Munters places large dehumidifiers outside the buildings on large job sites (Daily

Journal of Commerce and Munters 02/2002). For a smaller building or space, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place portable dehumidifiers within the space to remove the humidity for the job that portable dehumidifiers are able to handle.

In regard to claims 24-29, in addition to all above, Munters (03/2002) discloses maintaining level of 30% RH (page 1, col.1 and page 2, col.2) and Munters (02/2002) discloses drying lumber and plywood to 12% before closing the walls (page 2). Therefore, continuous moisture content readings are taken to determine whether the desired humidity level has been maintained. This is also shown in the article of "Hunters New HCU Humidity Control Independently of Temperature Control" provided with previous Office Action.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809. The examiner can normally be reached on Monday-Thursday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chen-Wen Jiang/
Primary Examiner, Art Unit 3744